

Integrated Stereo Amplifier

TA-AX390/TA-AX391

Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

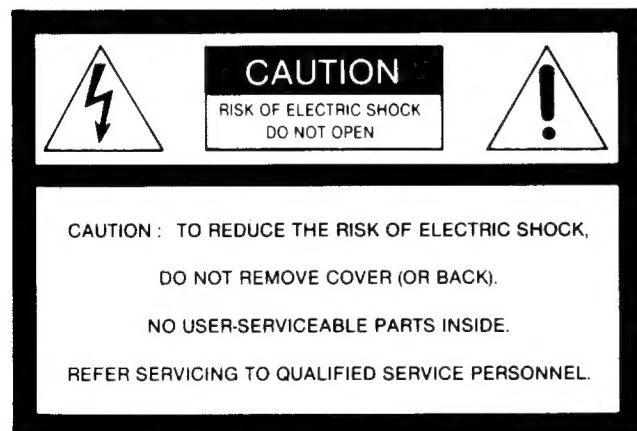
Owner's Record

The model and serial numbers are located at the rear. Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. _____ Serial No. _____

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Precautions

On safety

- Operate the unit only on 120 V AC, 60 Hz.
- Should any solid object or liquid fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.

On installation

- Place the unit on a level surface.
- Do not install the unit near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- Good ventilation is essential to prevent internal heat build-up in the unit. Place the unit in a location with adequate air circulation. Do not place the unit on a soft surface.

On cleaning

Clean the cabinet periodically with a soft dry cloth. If the stains are difficult to remove, use a cloth moistened with a mild detergent solution. Do not use solvents such as alcohol, benzine or thinner, since they will damage the finish.

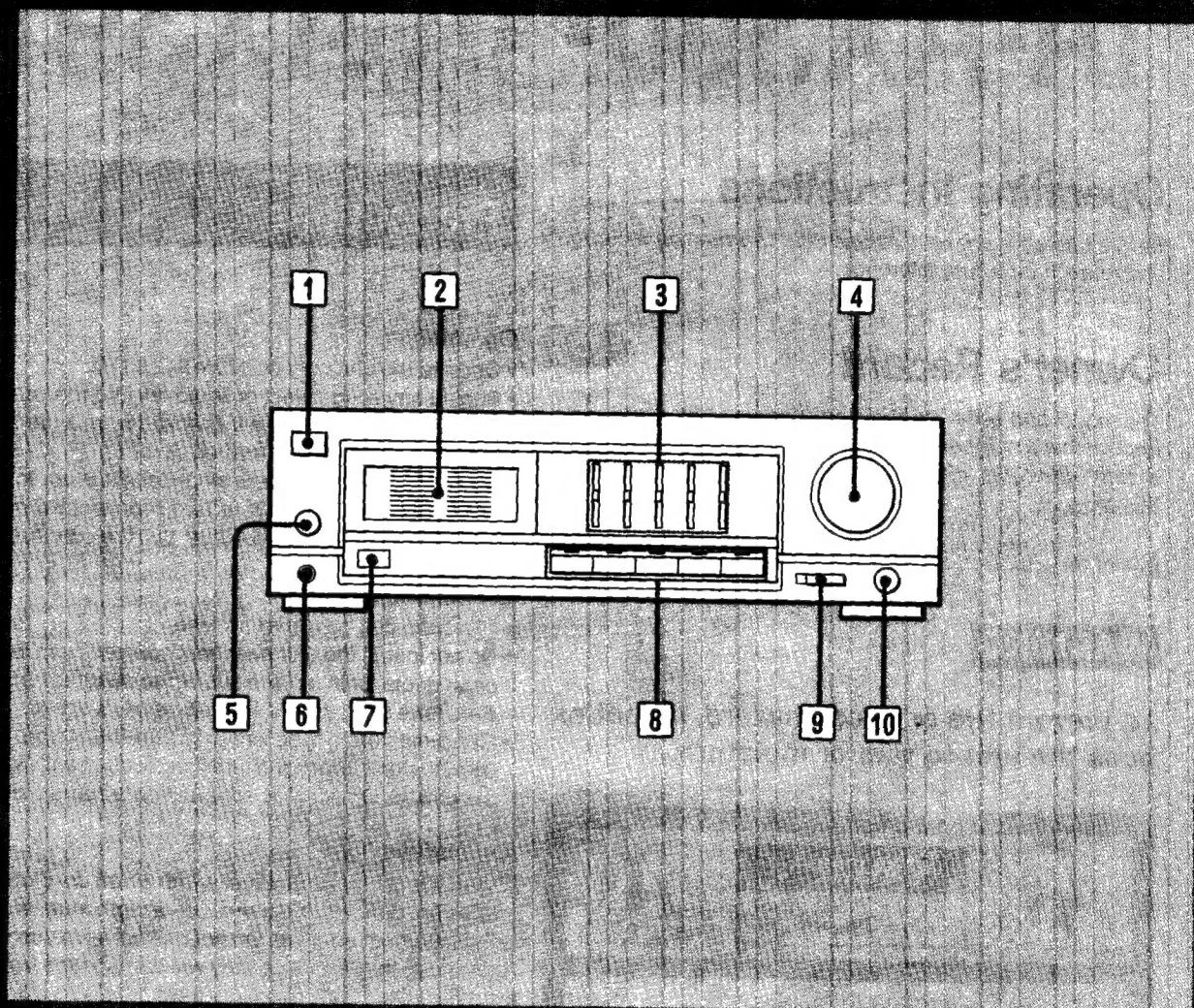
On repacking

Do not throw away the carton and packing materials. It makes an ideal container in which to transport the unit.

If you have any questions or problems concerning your unit that is not covered in this manual, please consult your nearest Sony dealer.

For detailed precautions, see the leaflet "IMPORTANT SAFEGUARDS".

Parts identification

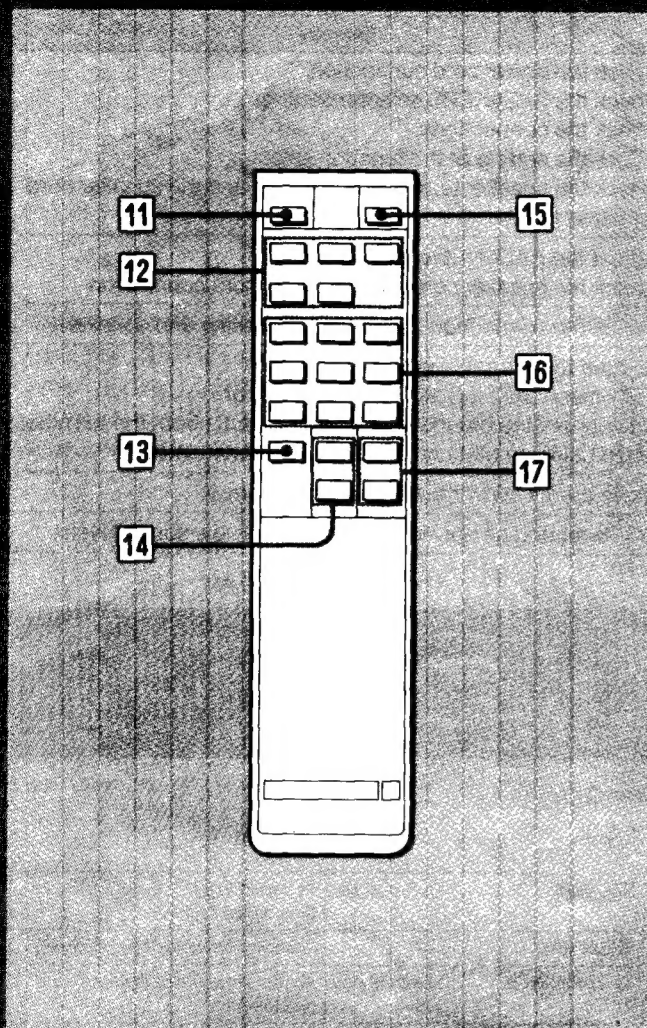


- 1 SYSTEM POWER switch
- 2 5 BAND Spectrum analyzer display
- 3 5 BAND GRAPHIC EQUALIZER controls
- 4 VOLUME control
- 5 SPEAKERS selector

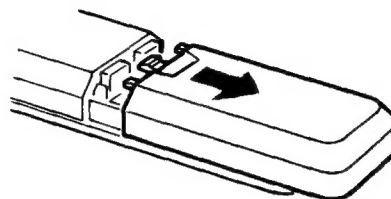
- 6 HEADPHONES jack (stereo phone jack)
- 7 Remote control sensor
- 8 Function selectors
- 9 DBFB (Dynamic Bass Feedback) switch and indicator
- 10 BALANCE control

remote commander (supplied with the TA-AX390)

Installing Batteries

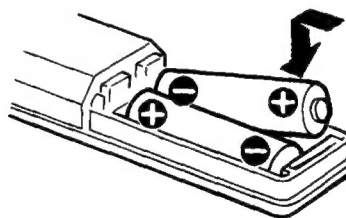


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Two size AA (R6) batteries.



- 11 DBFB button
- 12 Function selectors
- 13 Tape deck (B) pause button
- 14 TUNER PRESET buttons
- 15 POWER switch
- 16 CD player operation buttons
- 17 VOL (volume) control buttons

For customers of the TA-AX391

For information concerning the remote commander, see the enclosed leaflet.

Battery life

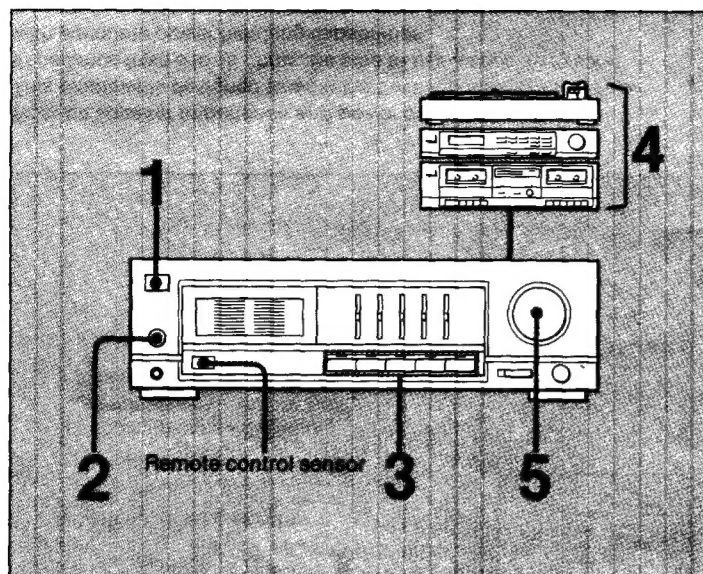
About half a year of normal operation can be expected when using the Sony SUM-3(NS) batteries.

When the batteries are exhausted, the remote commander can no longer operate the unit. If this happens, replace both batteries with new ones.

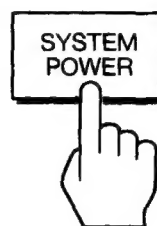
To avoid battery leakage

When the commander is not to be used for a long time, remove the batteries to avoid damage caused by battery leakage and corrosion.

Listening to a Program Source

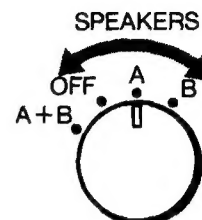


1



2

Select the speaker system.



Selecting the speaker system

To drive speaker system A: Set SPEAKERS to "A".

To drive speaker system B: Set SPEAKERS to "B".

To drive both speakers: Set SPEAKERS to "A+B".

For headphone listening only: Set SPEAKERS to "OFF".

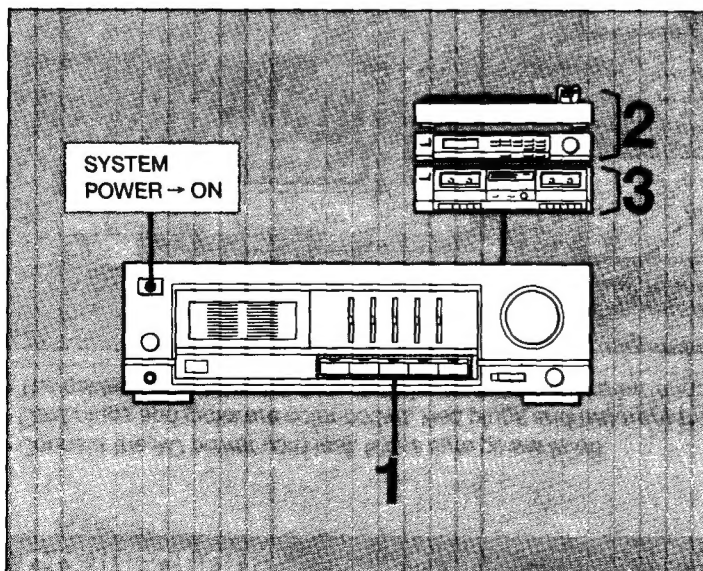
Note

When SPEAKERS is set to "A+B", two pairs of speaker system must be connected. Otherwise, no sound can be heard.

Tape Recording

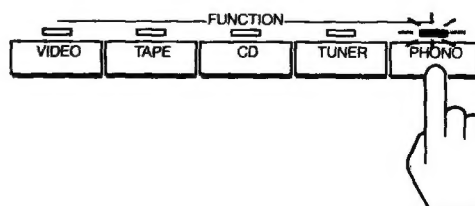
You can record any program source using a tape deck connected to the TAPE jacks.

The BALANCE, VOLUME, GRAPHIC EQUALIZER controls and the DBFB switch have no effect on recording.



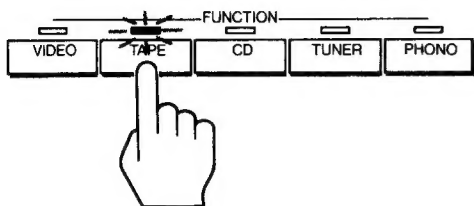
1

Select the program source other than TAPE.



3

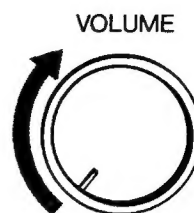
Select the program source.



4

Play the program source.

5



Selecting the program source

For a record program, press PHONO.

For a tuner program, press TUNER.

For a CD program, press CD.

For a tape program, press TAPE.

For a video sound program, press VIDEO.

ing.

2

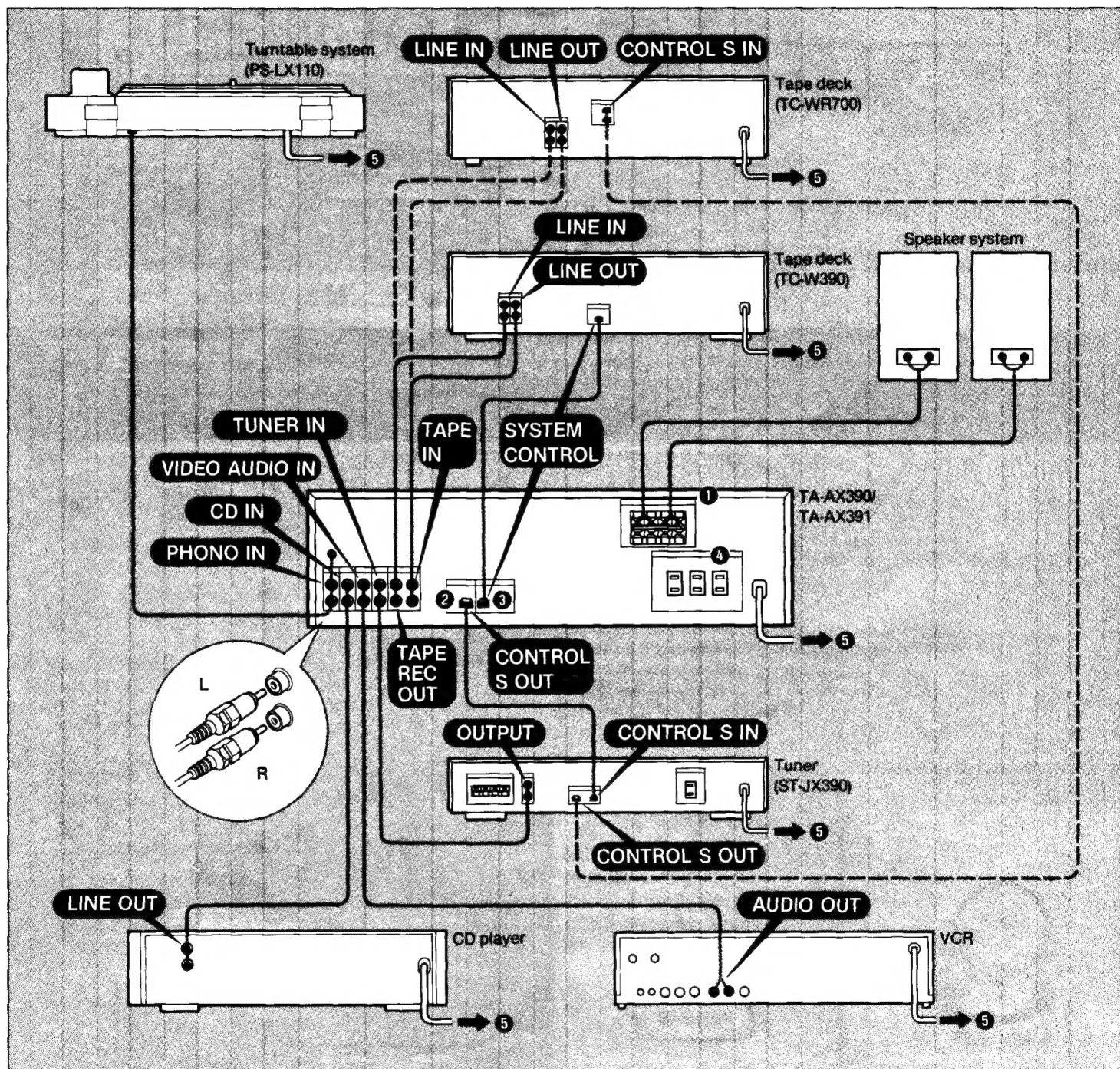
Play the program source.

3

Set the tape deck in the recording mode.

Connections

- Connect the AC power cord last. Make sure power is off.
- Cord plugs and jacks are color coded. Red plugs and jacks are for right channel (R) and white ones for left channel (L).
- The cable connectors should be fully inserted into the jacks. A loose connection may cause hum and noise.



Note on speaker impedance and power capacity
This amplifier is designed to work best with speakers of nominal impedance from 8 to 16 ohms. Be sure to use a speaker system with adequate power handling capabilities.

To connect a video tape recorder
Use the following cables.

For stereo video tape recorder	
RK-74A	phono plug × 2—phono plug × 2
For monaural video tape recorder	
RK-105A	mini plug × 1—phono plug × 2
RK-C71	phono plug × 1—phono plug × 2

Adjusting the Audio

The following operations apply only to reproduced sound.

Volume Adjustment

To increase the sound level turn the VOLUME clockwise.
To decrease it turn the control counterclockwise.

Sound Quality Adjustment

To reinforce bass

Press the DBFB (Dynamic Bass Feedback) switch to ON.
The lower the sound level is, the more the bass is emphasized.

To adjust tone quality

Adjust the 5 BAND GRAPHIC EQUALIZER controls according to:

- Personal preference.
- The room acoustics. For instance, playback in a room with padded walls or furniture will probably sound better with the high frequencies boosted.
- Program quality. If reproduction contains hiss, cutting the higher frequencies will improve playback.

Function of graphic equalizer controls

100 Hz: Boosts or cuts bass.

330 Hz: Adjusts the power, spaciousness and warmth of the sound.

1 kHz: Provides more presence for vocals.

3.3 kHz: Boosts a brighter sound or reduces stridency.

10 kHz: Highlights the delicate quality of instrumental sound.

Balance Adjustment

To change the relative strength of the right and left speaker outputs, adjust the BALANCE control.

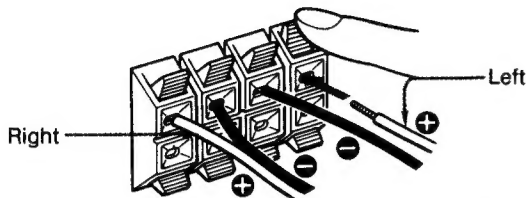
For personal listening

Connect headphones to HEADPHONES.

If howling occurs while listening to a record

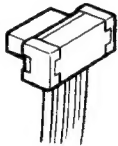
Switch off DBFB. Then turn down the volume and 100 Hz controls until howling stops. Howling occurs when the vibrations of the boosted bass are picked up by the stylus, and reproduced once again.

1 Speaker cords



2 CONTROL S connector (4-pin)

Connect to the CONTROL S IN connector of other Sony equipment with the 4-pin flat remote control cord for whole audio system remote control.



3 SYSTEM CONTROL connector (3-pin)

Connect to the SYSTEM CONTROL connector of the Sony TC-W390 tape deck with the 3-pin flat system control cord for remote control.

4 AC OUTLETS

These are used to power other audio components whose power consumption is less than the wattage indicated on the AC outlets.

SWITCHED: These outlets are controlled by the POWER switch.

CAUTION: Do not connect any electrical home appliances such as an electric iron, fan, TV or other high wattage equipment to these AC outlets.

5 Power cord

Connect to a wall outlet.

Troubleshooting Guide

Before going through the check list below, first refer back to the connection and operating procedures. Should any problem persist after you have made these checks, consult your nearest Sony dealer.

Symptom	Remedy
No audio	<ul style="list-style-type: none"> • Check the power cord connection. • Check the SPEAKERS selector setting. • Check the connections. • Check the setting of the function selector. • Check the speaker terminal connection and the speaker cord for a short.
No audio from one channel	<ul style="list-style-type: none"> • Adjust the BALANCE control. • Check the speaker cord or connecting cord connection.
Lack of bass sound or obscure instrument position	<ul style="list-style-type: none"> • Check the connection between the amplifier and speakers.
Severe hum or noise when using the turntable	<ul style="list-style-type: none"> • Ground the turntable system. • Fully insert the plug of the connecting cord. • Disconnect the ground wire of the turntable from the terminal when using an MM cartridge with a ground piece.
Noise when TV is turned on	<ul style="list-style-type: none"> • Move the TV away from the audio system.
Switching on DBFB does not affect the sound	<ul style="list-style-type: none"> • DBFB reinforces only low frequencies at low sound levels.

Specifications

AUDIO POWER SPECIFICATIONS POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 8 ohm loads both channels driven, from 20 – 20,000 Hz; rated 135 watts per channel minimum RMS power, with no more than 0.9% total harmonic distortion from 250 milliwatts to rated output.

Amplifier section

Power bandwidth (IHF)	30 Hz – 30 kHz (8 ohms, 65 watts)
Dynamic headroom	1.7 dB (*78 IHF)
Harmonic distortion	Less than 0.9% at rated output
Frequency response	PHONO: RIAA equalization curve TUNER, CD, VIDEO, TAPE: 30 Hz – 30 kHz ± 3 dB
Damping factor	27 (8 ohms, 1 kHz)

Input

Input jack	Jack type	Sensitivity	Impedance	S/N (weighting network, input level)
PHONO MM	Phono	3.0 mV	50 kilohms	71 dB 75 dB * (A, 3.0 mV)
TUNER CD VIDEO TAPE	Phono	250 mV	50 kilohms	92 dB 83 dB * (A, 250 mV)

*78 IHF

Output

REC OUT	Phono jacks	Voltage 150 mV Impedance 1 kilohm
SPEAKERS	—	Accepts speakers of 8 – 16 ohms.
HEADPHONES	Stereo phone jack	Accepts low and high impedance headphones.

GRAPHIC EQUALIZER controls

Boost/cut range: ± 8 dB (100 Hz, 330 Hz, 1 kHz, 3.3 kHz)
: ± 6 dB (10 kHz)

General System

Preamplifier: Low-noise, high-gain equalizer amplifier
Power amplifier: Pure-complementary SEPP OCL power amplifier with all stages directly coupled

Power requirements	120 V AC, 60 Hz
Power consumption	235 W
AC outlets	3 switched, total 100 watts max.
Dimensions	Approx. 430 × 130 × 355 mm (w/h/d) (17 × 5 1/8 × 14 inches)
Weight	Approx. 8.5 kg (18 lb 12 oz)
Supplied accessory	Remote commander (1) (TA-AX390: RM-S390, TA-AX391: RM-P202)

Design and specifications subject to change without notice.